DETERMINANTS OF HOUSING STRESS: A STUDY IN KUALA LUMPUR

BY

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ABSTRACT

Kuala Lumpur has generally ranked 96th in the world's most expensive city according to the Worldwide Cost of Living Survey 2017. The issue of rising cost of living in Malaysia is a recurring issue that has hit the country for a long time. This problem is compounded by the sudden increase in house prices in the last 10 years. Housing stress describes a situation where the cost of housing is high relative to household income. A household who wants to own a house need to spend more than 30% of his monthly income for housing cost, which might affect the living expenditure. Hence, this study is carried out is to explore the determinants the housing stress among employees in Kuala Lumpur. Data and information are collected using a questionnaire. The data and information then have been analyzed by using descriptive statistic, multiple linear regression and Pearson correlation using SPSS software. The result shows that 20.9% of respondents in Kuala Lumpur are facing housing stress. This analysis also found that the significant determinants contributing to housing stress are household income, monthly payment of housing loan/financing and types of house loan/financing. Hence, the government may need to restructuring of income and wages system in big cities like Kuala Lumpur to help people in Malaysia to overcome the housing stress. Besides that, Bank Negara Malaysia should improve and streamlining the Shariah framework and system legislation to keep pace with developments and monitor, the regulation in implementing and practicing the Shariah instruments applicable to Islamic products may help in reducing the housing stress.

Keywords: Housing stress, house price, household income, monthly payment of housing loan/financing and types of house loan/financing

ABSTRAK

Kuala Lumpur secara amnya telah menduduki tempat ke-96 dalam bandar termahal di dunia menurut Worldwide Cost of Living Survey 2017. Isu kenaikan kos sara hidup di Malaysia merupakan isu berulang yang telah melanda negara sejak lama lagi. Masalah ini diburukkan lagi dengan kenaikan harga rumah yang mendadak dalam 10 tahun belakangan ini. Tekanan perumahan menggambarkan keadaan dimana kos perumahan tinggi berbanding pendapan isirumah dimana rumah tangga yang ingin memiliki rumah menghabiskan lebih daripada 30% daripada pendapatan bulanannya untuk kos perumahan, yang mungkin memberi kesan kepada perbelanjaan hidup. Oleh itu, kajian ini dijalankan untuk meneroka penentu ukuran tekanan perumahan di kalangan pekerja di Kuala Lumpur. Data dan maklumat dikumpul melalui kajian literatur dan soal selidik. Data dan maklumat kemudian dianalisis dengan menggunakan analisis deskriptif, coeficient dan korelasi Pearson menggunakan perisian SPSS. Penemuan menunjukkan bahawa 20.9% pekerja mengalami tekanan perumahan dan 79.1% pekerja tidak mengalami tekanan perumahan. Kajian analisis menunjukkan faktor yang penting menyumbang kepada tekanan perumahan adalah pendapan isi rumah, bayaran bulanan pembiayaan rumah. dan jenis pembiayaan rumah. Justeru, kerajaan perlu menyusun semula sistem pendapatan dan upah di bandar untuk membantu pekerja di Malaysia mengatasi tekanan perumahan. Di samping itu, Bank Negara Malaysia harus mempertingkatkan dan memperkemas rangka kerja Syariah dan system perundangan supaya selari dengan perkembangan semasa industri perbankan Islam dan memantau peraturan dalam pelaksanaan dan praktik instrumen Syariah yang berlaku untuk produk Islam boleh membantu dalam mengurangi tekanan perumahan.

Kata kekunci: Tekanan terhadap perumahan, harga rumah, pendapatan isirumah, bayaran bulanan pembiayaan rumah, dan jenis pembiayaan rumah

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LIST OF ABBREVIATIONS

AITAB	Al-Ijarah Thumma Al –Bay"
NAPIC	National Property Information Centre
BNM	Bank Negara Malaysia
DV	Dependent Variable
IV	Independent Variable
KMO	Kaiser-Mayer-Olkin
MIFB	Master of Islamic Finance and Banking
SPSS	Statistical Package for Social Science
UUM	Universiti Utara Malaysia

CHAPTER ONE
INTRODUCTION

1.0 Introduction

This research paper will discuss the determinants of housing stress among employees in Kuala Lumpur. This chapter includes the background of the study, the problem statement of this research, the research question, the research objective, potential significant of this study, the scope of the study, and the limitation of this study. The organization of this dissertation is also included in this chapter.

1.1 Background of study

Home is one of God's most precious gifts to mankind on earth. Humans really need a home for shelter. In addition, the home of a Muslim is a place of worship to Allah (Osman, Rofie, & Zain, 2004). Moreover, Allah S.A.W in the holy Quran (al-Nahl 16: 80) state that;

"And Allah has made for you the houses which have been built, and He has made for you the skins of cattle for shelter, and has made for you all kinds of household goods and ornaments (for your use)"

While the prophet Muhammad (p.b.u.h) had strongly emphasized on His Hadith been Narrated by Al-Thabrani:

"There are three great achievements of a Muslim in the world, one of which has a spacious and comfortable home"

Owning a home for shelter and convenience is essential to the dream of most households and a definition of private achievement is also regarded. However, house prices will continue to increase and become cheap during periods of rapid economic growth, especially in the years preceding the 1997 and early 1998 Asian financial crisis. However, housing remains a significant manifestation of family aspiration and one of households ' most costly investments.

Housing sector plays an important role in jobs, capital market, consumption, and economic wealth for the country's economy, thus stimulating the company cycle. Families want to live in families to get them off to the best possible beginning. However, in many parts of the world, high housing costs complicate housing decisions experiencing housing stress, since families have to weigh up trade in expenses, housing quality and situation, as well as place. For example, in Malaysia, particularly in Kuala Lumpur, middle-and low-income families are presently facing the biggest limitations on their housing decisions. These families are also the most probable to be affected by housing issues and housing stress, already among the most vulnerable. Malaysia's government has committed to enhancing the quality of life and life outcomes for all individuals in areas such as health, enjoyment, achievement, and monetary from experiencing housing stress. The psychological and safety of housing stress can be affected of the family. Therefore, most

studies connect housing problems to the stress of housing. The Malaysian Insider (2015) indicates that affordability and housing stress problems are central to a bigger segment of Malaysia's culture, especially in bigger cities such as Kuala Lumpur.

Under the Budget 2018, the Government would provide 17,300 units for the Perumahan Rakyat Project, which is 210,000 units under the 1 Malaysia People's Housing Project (PR1MA) priced RM250,000 and below, as well as 25,000 units finished by the 1Malaysia Civil Servants Housing Project (PPPA1MA). This will then help to increase the housing supply and availability of affordable house in the market. This may can reduce o housing stress in Malaysia.

Even though in Malaysia do not have specific analysis that represent how many of people that faced to housing stress but we can refer to Australia's analysis. For example according to Harding, Phillips, & Kelly (2004), an approximately 8.8% of the total residential pressure experienced in Australia in 2004, representing 1.7 million individuals. This implies, as mentioned previously, that their projected cost of accommodation exceeded 30% of their disposable revenue and that they accounted for 40% of the equal distribution of revenue. In addition, this analysis demonstrates that two-thirds of all those privately rented in housing stress. The next largest group was 230,000 home buyers, representing approximately one quarter of all home stress buyers. It was extremely probable that both those who owned their home and those who rented public housing experienced housing stress. with these two organizations together accounting for less than one-tenth of all housing stress. Hence, Malaysia should have an analysis to justify how many people facing housing stress.

Table 1.1 shows that Malaysian House Price Index for All Types of Houses from 2011 until 2017.

Table 1.1

Malaysian House Price Index for All Types of Houses (2009-2017)

Year	Malaysia House Price Index	Annual change (%)
2009	94.8	
2010	100.0	5.5
2011	110.9	10.9
2012	125.8	13.4
2013	140.0	11.2
2014	153.2	9.4
2015	164.5	7.4
2016	176.1	7.1
2017	187.6	5.1

Source: National Property Information Centre, 2017

According to National Property Information Centre (NAPIC) 2017, the house price index increased rapidly year by year As we can see in increasing of house price, there is no sign of a decline of house price. House financing became unaffordable and not accessible to alike during this period. Expensive financing costs were likely to be the factors leading to the increasing of the house prices, especially in Kuala Lumpur, to increase dramatically as shown above. As the house price is increasing, the employee will be facing of housing stress in Malaysia. This shows an increasing concerned of the possibilities of housing stress to occur in Malaysia.

According to Bank Negara Malaysia (2018), the number of unsold housing units increased in 2017 while houses also remained unaffordable especially in key employment centres.

Despite the high number of unsold residential properties priced at and above RM250, 000, housing market activities have increased in the Financial Stability and Payments Report (BNM, 2017). In 2017 unsold housing units increased annually by 22.7 percent to 129,052 units at the end of September 2017, while in 2016 41% unsold housing units increased. These numbers shows that peoples in Malaysia was facing financial stress and housing stress because of the unaffordable to own a house. Because of home ownership has become a major issue for Malaysians, particularly in the low- and middle-income category, they are living in uncomfortable rented house and also under pressure. The reasons for this are varied, but the high housing prices and high living costs make it almost impossible for many to own homes between the ages of 23 and 40. According to NAPIC (2017), the rise in house prices, due to imbalances in supply and demand that worsened from 2014 to 2017, have outstripped the rise in income levels of most Malaysians.

1.2 Problem Statement

The present financial and economic crisis, which places growing pressure on households budgets, raises growing concerns about housing affordability. With low-income levels and high price of housing, individuals are stuck in the stress of housing. Households are seen to be under pressure from housing if they are within the bottom 40% of revenue distribution and pay more than 20%, 25% or 30% of their revenue from housing (Roo, 2014). For instance, according to the evaluation in Malaysia Mohamed & Baqutayan (2014), the greatest problem that causes the housing stress is where the household spend 55% more on the transportation and childcare costs compared to the housing. This proved that, housing stress did happened to household even though do not have specific number in research.

Approximately 66.7% of Kuala Lumpur communities are middle-income groups and they can only afford to purchase a home between RM180, 000 and RM200,000 (Wan, 2010). Nowadays, however, housing prices are the highest and most indirectly in housing stress. particularly those staying in the capital city (Kuala Lumpur). It can be said that Kuala Lumpur's housing cost is approximately 40% more expensive than other areas in Malaysia (Wan, 2010).

According to Bank Negara Malaysia (2017), 123,103 units of affordable homes were constructed by the government between 2013 and October 2017, with more than one million units at different building or planning phases. The government also announced a freeze on the growth of new luxury housing properties to rebalance the demand on the housing market. Nonetheless, incoming housing supply continues inadequate to satisfy households' increasing demand. Only 24% of new launches (25,124 units including those constructed by private developers) were priced below RM250,000 from January 2016 to September 2017. This is not enough to meet the necessity of about one-third of Malaysian households that can only afford house priced below this rate. The imbalance has been worsened by the slower increase in average household income (CAGR 2012-2016: 9.6%) compared to average household prices (15.6%), making households in some parts of the country seriously unaffordable. Therefore, the issue of inadequate revenue to buy a house has to do with the cost of a house that is not affordable will contribute of housing stress. The primary cause of the stress of housing is that households are not enjoying their right to proper housing. Moreover, there is restricted option of housing in the housing sector for the supply of accessible housing.

According to Bank Negara Malaysia (2018), the banking system's exceptional residential loans rose by 8.9% to RM498 billion at the end of June 2017. It means the borrowers are defaulting due to the yearly rise in the interest rate. This is happen because of the people in Malaysia to experience of housing stress to cope high monthly payment of home loan or financing. Apart of that, according to Malaysia economist, 2018 considers houses priced RM300,000 and below is affordable and Bank Negara, 2018 the rejection rate of housing applications has declined to below the average rate of about a quarter of all cases. The report stated that the rejection rate of housing application for loans is because they are above RM250,000 and the affordability of majority of people in the affordable category is RM250,000 and below. So that, the requirement based on household income is not meet the requirement because of insufficient income to support debt repayment to the bank. Therefore, housing loan rejection due to inadequate income will be causing housing stress to the borrower to own a house.

According to Malaysia Statistics Department (2018) of Household Expenditure Servey (HES) conducted in 2016, Malaysia's average monthly household consumption spending increased RM3, 578 2014 to RM4, 033 in 2016. rising at nominal value by 6.0 percent per year. For the same period, the annual growth rate is 3.9%. In 2016, the second largest average monthly household usage spending was recorded by Wilayah Persekutuan Kuala Lumpur, RM6.214, which is the largest expense in the residential industry (24%) rather than food, followed by Selangor (RM5, 183). This implies that housing stress causes families to constantly juggle vital family spending in and around the cost of housing. The payment of housing loans or funding on a monthly basis must generally be the largest priority, which means that what remains after housing loans or funding must be extended

to include education, leisure, food and groceries, apparel and other products, often in that priority. Households minimize and delay for others expenditures due to prioritize house payment.

In addition, high housing costs independently contributed to economic stress, according to the Household Expenditure Survey (HES), and discovered that the incidence of financial stress among lower-income families also experiencing housing stress was considerably greater (S. Rowley, Ong, & McMurray, 2010). The average monthly expenditure on urban household consumption showed an annual increase of 5.8% from RM3, 921 to RM4, 402, while rural households also rose 5.7% annually from RM2, 431 to RM2, 725 between 2014 and 2016. It indicates that all household earnings levels can cover the expenditure of their fundamental life requirements; housing affordability of families of distinct revenue levels is growing. However, because of home price growth is quicker than household disposable income development, residents ' accessible housing regions in Kuala Lumpur are declining.

Housing stress is constant for a number of households. The compromises and sacrifices these households are forced to make are part of an endless daily struggle, which restricts their ability to plan. As a last resort, meaning that the people that services do support are the tip of the iceberg and typically people at the point of crisis. Inability to service debt, including housing debt, is a key trigger point for seeking the support of financial services such as Care Financial Counselling Service. Households in housing stress are restricted in their ability to compromise on rent, meaning that households unable to pay rent accumulate rental arrears.

According to Health (2014), twenty four percent (24%) households in housing stress found mortgage payments very difficult to settle down, compared with 3% of other low-moderate income households. Support from Pittini (2012), more households are facing difficulties in paying rents and mortgages, as evidenced by the growing percentage of the population reporting mortgage or lease payment arrears. Bank Negara (2018) stated that 27% of the people living in Kuala Lumpur gained their income below the minimum point, which resulted in lack of development in both personal and family, society's participation and stressful financial pressures. Despite the assessment of the income, compared to expenditure, it showed that the income obtained is inadequate to the outcome of the employees' works. The results show that the income is accepted Malaysian workers are not worth the output value they produce. This is prove that, housing stress is therefore likely to lead to financial stress, compelling households to sacrifice across multiple areas of household expenditure.

In addition, Abdullah & Meera (2018), stated that Kuala Lumpur is known to be severely inadequate on accommodation rate as compared to other state in Malaysia. The statement is supported by (Baqutayan, 2016) looking at house cost is 40% more costly that other states. This is shows that people who live in Kuala Lumpur had a serious housing stress to own a house. Moreover, it was identified that the high cost of financing of Islamic products compared to conventional loan may worsen the problem of housing stress stress (Amuda, 2015). It means the Islamic products do not really help the Ummah due to high cost of financing and the borrower faced to housing.

1.2.1 Research question

In line with the problem statement above, the key research questions to be addressed are as follows;

i. To what extent the level of housing stress among employees in Kuala Lumpur?

ii. Are there any relationship between lifestyle, household income, house price, financial commitments, monthly payments of house loan/financing, availability of affordable house and types of house loan/financing on housing stress.

iii. What are the significant factors contributing to housing stress among employees in Kuala Lumpur?

1.2.2 Research objective

The research objectives of this study are as follows:

i. To examine the level of housing stress among employees in Kuala Lumpur.

ii. To examine the relationship between lifestyle, household income, house price, financial commitments, monthly payments of house loan/financing, availability of affordable house and types of house loan/financing on housing stress.

iii. To identify the determinants of housing stress among employees in Kuala Lumpur.

1.3 Definition of Key Terms

In this study, several key terms are highlighted and definite. Each term is important in order to better conceptualize such as following:

i. **Housing stress**

Housing stress describes a situation in which the cost of housing is high relative to family income. People are being in an affordable housing stress when spending more than 30 percent of gross income on expenditures for housing (Health, 2014).

ii. **Lifestyle**

Lifestyle is a way of life created by a community, a culture, a group or a person. This involves food hunting patterns, love of traveling, love of luxury products and accessories that describe how an individual spends his or her time.

iii. **Availability of affordable house**

Availability of affordable house defined as housing which is sufficient in quantity of affordable house. Governments and developers need to provide every household with a lot of affordable housing to enjoy their housing rights.

iv. Household Income

Household income is a measure of the combined income of all individuals who are sharing a specific household or location of residence. Household income is household consumption expenditure, which refers to all household and individual members' money expenditure on goods such as groceries, education and leisure and monthly payment of housing loans.

v. Financial commitment

Financial commitment is an obligation to spend a lot of money over a long time. The amount of money or other property that the fund is conditionally or unconditionally obliged to pay or produce under a financial commitment.

vi. House price

Malaysian House Price Index (MHPI) controls housing price in Malaysia. Housing price changes is affected by interest rates. MHPI is also helpful in creating the economic national policy for the property development.

vii. Types of home financing/loan

Types of house loan/financing is a method that given on a debtor/creditor. These types of loan will ensure either house loan or house financing will give positive impact to borrower in doing installment such as Islamic Financing, the principal amount, tenure and profit rate determines the sale price and the profit earned by the lender. Meanwhile Conventional loan, payment is made over a set tenure by installments. A portion of each installment

paid goes towards servicing the interest, while the remainder goes towards paying down the principal.

viii. Monthly payment of home financing/loan

A regularly scheduled payment which borrower sufficient or insufficient to pay back the house loan or financing loan.

1.4 Significance of the study

This research will lead to the wealth of information about housing stress, especially housing stress factors among employees in Kuala Lumpur. Information on the topic of stress related to housing stress among staff in Kuala Lumpur is scarce and many sources do not provide present data, therefore this study will play a crucial part in the provision of present data.

Secondly, government will know whether their intervention towards level of housing stress would give bad impact to the workers in Kuala Lumpur. Moreover, the government can create new policy by control pricing and provide variety of scheme for workers in Kuala Lumpur's income household to buy a house.

1.5 Scope of the study

This study is aim to investigate the determinants of housing stress among employees selection in Kuala Lumpur.

- Sample taken from government and private sector only
- Sample must have a house and working in Kuala Lumpur

Apart from that, the study intends to evaluate the level of housing stress among employees and the determinants that contributing to level of stress. Therefore, those points have therefore attracted the researcher to create an area of research in Kuala Lumpur.

CHAPTER TWO

LITERATURE REVIEW

2.0 Housing Stress

Housing stress describes a situation which the cost of housing is high relative to family income. Being in a housing stress when spending more than 30 percent of gross income on expenditures for housing (Health, 2014). Housing stress was discovered to be more common in urban regions, particularly in the capital cities, followed by other urban centres. (Phillips, Chin, & Harding, 2006). Moreover, according to Yates et al. (2007), the proportion of residential stress homes enhanced from 24% in the mid-1990s to 28% in a decade in 2002-03. This was a period of steady economic growth and a rise in average household revenue, including lower family revenue. Consequently, under a relatively conservative set of assumptions concerning future developments, both the incidence of housing stress and the total amount of housing stresses are likely to increase. By 2045, commonly covered by the government's two intergenerational reports, housing stress is likely to raise by at least half a million homes, decreasing the number of low-income households at risk of significant affordability problems to well over 1.5 million homes (Yates et al.,2007). For example, according to Baqutayan (2016) indicates that transportation cost 19 percent is one of causes of housing stress. This is because household cannot afford to buy a house nearest to the office because of house price is higher. Therefore, pay less for accommodation by living in a less expensive region but more for transportation expenses. This may keep the family out of the stress of accommodation, but it does not solve the economic stress.

In additional, according to A, A S, & Zarin, n.d.(2016), indicates that house price is too high had the highest scale of mean (4.8) to contributing of housing stress rather than others factor. It means house price is influencing factor to housing of stress. This is because elevated housing prices on the market today bring so much trouble to most of the Bumiputera's in the reduced and middle class revenue In addition, supported by Yates et al. (2007), families migrate to more remote places to find cheaper housing, leading to increase commuting lengths, creating additional pressures on household and household budgets. The increasing of house price has proven that the household will be experiencing housing stress.

Moreover, household income is also regarded an issue of housing affordability and household stress. According to Zafirah Al Sadat Zyed, Wan Nor Azriyati Wan Abd Aziz, & Noor Rosly Hanif, (2016), the findings showed that household income influences to housing stress. In addition, support by Quigley & Raphael (2004), the number of households paying more than 30% of housing income has increased by 6.4 million. This analysis showed that, by raising the complete number of households that pay more than 30% for housing, housing stress will automatically rise.

Increasing in housing expenses and house prices have resulted in enhanced interest in ideas such as affordability of housing and stress on housing. Affordable housing can be commonly defined as housing with a suitable basic standard that provides reasonable access to work opportunities and community amenities at a cost that does not cause the occupants significant distress (Disney, 2006). Those who do not have affordable housing under this criterion are said to experience housing stress that can be measured in terms of the subjective experiences of people in handling homes costs (Yates & Milligan, 2007).

According to (A et al., n.d.), even though they earned a monthly revenue for at least RM5, 000, the family could not afford to purchase a home. However, for those who already owned a house, only purchase a house at an average cost ranging from RM200, 001 to RM250, 000. In Malaysia, RM691 earnings per month is the poverty line that was revised. With this level of income , households that can afford will be RM32, 800, RM207 monthly mortgage payment, twenty-year interest rate of 5% and 5% down payment. It shows that, households sold at RM32, 800 continue to decline at domestic level from 26% in 1995 to 17% in 2006. Decreasing availability of affordable house year-by-year cause lowest income experiencing to housing stress.

Besides that, high housing prices on the market today bring so many problems to most Bumiputera's lower-and middle-class incomes. The rise in residential property prices is demonstrated when the comparison between housing property prices takes place from 2010 to 2014. Therefore, if you want to own a house. it will lead you. Consequently, if they want to own a home, they spend more than 30% of their revenue solely on this cost of accommodation (A et al., n.d.). This will cost them more for housing and may experience a disease called the affordability stress of housing. High rent paid was the second largest factor that affected the affordability housing stress. Households in the reduced and middte group revenue who are unable to purchase a home make a choice to rent the properties instead of owning the properties.

However, the inverse scenario occurs when the offered rental is also high in the market, particularly in the warm region. Highly rent on the market is due to equipment that is being equipped in these fields, and homeowners are increasing the rental property that is owing to this situation. Rising in rental of house somehow gives most of the residents an

adverse impact. Lower household income is also one of the key variables influencing the stress of housing. The research showed that 68% of people were unable to purchase a home because most of their income was unable lo deal with the housing cost in the market (A et al., n.d.). Hence, they tend to rent a house because of this situation Thus, income can be said as one of the major element in owning a house and to reduce the housing stress. Lack of financial understanding or financial education of mortgage products, may be an important barrier to home ownership for some households. According to Yates (2007), financial stress is considerably greater for lower-income families, which also experienced housing stress. In addition, poor and medium-sized households that were compelled out of town to prevent housing stress in urban regions are then burdened with elevated transportation expenses and will therefore continue to experience economic stress once the transportation expenses are taken into consideration. According to Tanton (2011), we could predict that many families are already experiencing housing stress that would be further extended if transport expenses were added to housing expenses because some regions with elevated housing pressure are situated in the outer portion of the capital towns. This may also be the case for the state area equilibrium as transport expenses could be greater in these fields owing to reduced rates of road infrastructure and public transport.

While the direction of relativity is not certain, the evidence strongly indicates that economic stress contributes to worsening mental health, although the reverse is also true, namely that those with poor mental health are more likely to face financial difficulties. Therefore, the negative effects of financial stress over time suggest that, as economic difficulties continue over lime, mental health problems arise sooner rather than later for

households as a result of affordability difficulties, possibly as a result of the combination of income (Curl & Kearns, 2013).

Apart of that, cost of repaying the loan also one of the housing stresses that is aced by household. The greater the house price, the greater the loan and the greater the monthly repayment of the mortgage. With low revenue levels and high housing costs, youth are caught in the stress of housing. Households are considered experiencing to housing stress if they are below 40% of income distribution and pay more than 20%, 25% or 30% of their income on housing (Yates, 2006).

According to Bujang .A.A *et al* (2017), lower household income is also one of the key variables affecting the affordability of housing stress. The analysis showed that 68 percent of participants are unable to purchase a home because most of their income is unable to deal with the market offered housing price. They tend to rent a house because of this scenario. Thus, income can be said to be one of the primary component in owning a home.

2.1 Reviews on factors influence housing stress

The factors, which contribute to housing, stress among employees in Kuala Lumpur. The details of each variable will be explained in this part.

2.1.1. Lifestyle

Lifestyle is a complicated concept including plenty of components from clothing to food to family structure (Oztop, 2016). Life style that is directly related to the how the household spend their income which is more spend to leisure, luxury/brand items, donation, foods, car maintenance/accessories. This will be causing the household facing to housing stress because of default payment and the household need to find extra income to cover the housing payment. This is because the household spend their income more to daily lifestyle rather than to own a house.

2.1.2 Household Income

According to the A *et al.*, n.d (2017.), Household income comprises of all receipts received by the household or individual members of the family in a year or more frequently, whether financial or in kind (goods and services). Income can be described as the amount of income a family earns and the amount of income assigned for residential purposes is a starting point for evaluating the amount of affordability of homes.

Income is the best method to analyses the level of household ability. According to the Department of Statistics, Malaysia (2012), Malaysians have a middle and lower revenue of 60% compared to 40% of Malaysians with elevated incomes. Wan et al. (2010) states that The middle revenue group in Kuala Lumpur allows only RM180, 000 to RM200, 000

houses to be purchased and is categorized as affordable housing. However, according to Shadiya (2014), the house prices provided are much greater than the capacities of middle-income earners. It means that the household income insufficient and inadequate to bear the payment of house price.

According to A. Abdullah & Meera (2018), median monthly income is MYR 2,848, therefore annual income is MYR 34,176, and by dividing the PHB market price of MYR 125,625 by the B40 annual income, the result obtain 3.7 times, which is indicates that this is moderately unaffordable to own a house. It means when the offered house price on the market is greater, the affordability of revenue will be weak. This can therefore contribute to greater housing affordability stress because earned income cannot afford to buy households that are higher than RM200, 000.

2.1.3 Housing Price

House price plays an important role in housing affordability. Price is considered to be the most reliable index of housing market. According to Lee (2009) It has been found that home price volatility is subject to increase in reaction to bad news and inflation is a determinant of the volatility of housing prices. The volatility of housing prices has also resulted in price discrimination in housing. For example, young households are regarded the victims of a home price game where advantages are available to those who are already homeowners and older with greater purchasing power than they are (Roo, 2014). It is mean volatility in increasing house price will be causing to housing stress. According to (San Ong, 2013) Evidence showed that housing price discrimination exists in the housing

market. Even so, buyers and sellers negotiating abilities and authority influence house prices.

According to(Zainal Abidin Hashim, 2010), a case study in Malaysia involve the house price of state west coast and east coast. The research shows that, home prices are obviously greater in Selangor, at least double that of Kelantan in the early 1990s and almost four times greater in 2006. It means that household in west coast area more facing housing stress because of the price of house is higher compared to east coast. At the domestic level. the average home cost in the south coast between 1995 and 2006 is 35% to 53% greater. The Asian economic crisis, which began in late 1997 and continued until early 1999, struck the Malaysian property industry hard.

2.1.4 Financial Commitment

Financial stress indices reflect a step away from a single dimension strategy towards identifying financial hardships, such as income-only ones, and towards a multidimensional strategy reflecting people's ability to enjoy a socially acceptable minimum material standard of living.(Yates, 2007).

According to Health (2014), compromises between families are most common among household leases. Of all renting households, 15% have substantially compromised food, 14 percent have substantially compromised health, and 36% have considerably affected family and recreation activities over the past 12 months owing to economic pressures. However. for many rental and mortgage homes, the distinctions between weekly rent and mortgage expenses are tiny. In addition to this, families also sacrifice their homes in the face of poverty and financial stress. As stated, many individuals live in larger households

with more income-earning adults to share housing costs, while many young adults continue to live with parents. According to Health (2014), housing stress outcomes are important determinants of financial stress and sacrifice. The 30/40 rule predicts stress against this scale reasonably well. Of those facing housing stress under the 30/40 rule, 24% scored 7+ on the scale, compared with 9% of those not facing housing stress. It is show financial commitment one of factor in contributing to housing stress.

2.1.5 Monthly Payment of home loan/financing

Monthly payment of loan/financing is depending on ability to pay back the debt and importance factor is related to scale of individual income. According to Abdullah & Meera (2018), household B40 median monthly income is MYR 2,848, therefore annual income is MYR 34,176 and market price of MYR 125,625 by the B40 annual income with scale 3.7 times, which indicates that this is moderately unaffordable. Because of the median income moderately unaffordable, the household loss their aim to ensure to live in the right house and subsequently they will be in the depression to bear the monthly installment on housing. Moreover, for long-term leasehold (al-Hikr) financing, structure can deliver affordable low-cost public housing to the B40 for MYR 125,625 with installments of MYR 570 per month depending on the median income of the B40. This analysis also assume that median income only able to afford 20% (MYR 570) of the median income towards the cost of housing. This shows that the household cannot afford to pay monthly of installment of housing due to small scale of income to compete the house price.

Furthermore, according to Baqutayan (2016), The smallest price-to-income housing ratio is almost more than 30 percent of the householder's revenue. Consequently, these 23% of

participants represent 50% of those who answered this question; they spend more cash on renting. With regard to these incomes, RM1201 and RM400 are spent on accommodation they pay 30.02% of their revenue on home rent. This indicated that there is housing stress caused by the amount been paid to rent a house or even a room. As stated in (Wacoss, 2014), low and moderate revenue households are usually regarded to experience housing stress when they have to spend more than 30% of their gross income on housing.

2.1.6 Availability of Affordable Housing

Availability is recognized as one of the main obstacles to accessibility of affordable housing among households. According to Roo (2014), the analysis showed that there is less affordable housing available in 2011 than 2001. As a result, Available affordable housing for low income earners. The third largest mean at 3.59 showed that the participants agreed that the lack of accessibility of affordable housing causes the obstacle to access affordable housing (Roo, 2014). It is mean lack availability of accessible house experiencing housing stress. In addition to the obstacle of accessibility to affordable housing, it is suggested that higher provision of affordable and good quality housing be introduced. In addition, higher provision of shared equity schemes for first-time homebuyers could potentially enhance the scenario.

According to Roo (2014), the government should improve the accessibility of affordable housing, more affordable home ownership and introduce a mortgage rescue system to help those struggling with the repayment of mortgages or loans. In terms of understanding affordable housing, it is suggested that individuals have greater access to assistance and

advice throughout the process and are treated fairly with regard to the housing benefit system (Connie & Roo, 2014). This is show; government should provide more availability of affordable housing to prevent housing stress.

According to Bujang, Jiram, Zarin, & Anuar (2015) , The capacity of the person is the main factor in the high market prices of the house and the lack of availability of affordable houses, particularly in the urban area. This was also supported by (Bujang et al., 2017). When the developer is defined as less interested in offering low- and medium-cost homes that are affordable owing to the low profit margin. Therefore, most prospective buyers discovered that market prices are far more costly than their capacities. It is mean the availability of affordable house related to the house price.

According to Rumah & Milik (2010), addresses the problem of lower-income housing accessibility for both Kelantan and Selangor states. This analysis shows that for the state of Selangor in 1995, the median price house and 30% of the houses were sold or less and 30% or less for the median price house in the same year. This is show that the house were sold is the price house less than median price house. It means that the house median price is not affordable house and this will cause the experiencing to housing stress. Therefore, availability of lower cost housing is to benchmark to a certain level of income which signifies the amount of income and below which a household will not be able to obtain basic.

2.1.7 Types of housing loan/financing

In Malaysia, two types of financing that bank been offered such as conventional loan and Islamic financing Islamic banks should be conscious of home financing and any other property financing to prevent the sanctity of Islamic values. According to Amuda (2015), regarding the similarity between Islamic banking and finance and the conventional system, 13.9% strongly agreed that present and existing procedures in Islamic banking and finance are similar to conventional procedures and 33.3% agreed. For example, AITAB product is operated on the grounds of standard ideas as there is currently no written Shari'ah law specifically regulating the operation of AITAB (D. N. I. Abdullah & Dusuki, n.d.). Support by Tag El-Din & Irwani Abdullah (2007), the Islamic hire purchase practice is a mildly altered version of the standard hire purchase, which is two distinct elements in both lease and sale operations, there will be nearly no distinction between financing and conventional property ownership. This shows that the choice of types of financing should not reduce on housing stress.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, the methodology implemented in this research will be discussed. Research framework, research design, data collection instruments as well as data collections method are explained in detail. This research applies quantitative research by using statistical method (SPSS software).

This chapter is divided into some sections. These sections define respondent selection, questionnaire developments, study materials, and survey procedure. Next, to test the study hypotheses between dependent and independent variable, the following chapter briefly describes the implementation of correlation analysis and regression analysis.

3.1 Research design

The information and data collection approach will be addressed in this chapter. To generate the results, the design of the respondent's instrument and distribution questionnaire will be analyzed. This study utilizes cross-sectional survey design and quantitative research using statistical method (SPSS software) to obtain numerical data analysis. This research design is crucial in identifying the respondent's feedback by responding. The questionnaire comprises of two parts; demographic information and determinant of contributing to the stress of housing.

3.2 Theoretical Framework

In this study, theoretical framework guides research, determining which variables should be measured. It is a set of theoretical assumptions that explain there relationships among of determinants. This study will undertake the main variables which is housing stress and the determinant factors which is known as independent variable. The factors focus on the variables which are financial commitment, availability of affordable house, lifestyle, house price, household income, monthly payment of house loan/financing and types of house loan/financing.

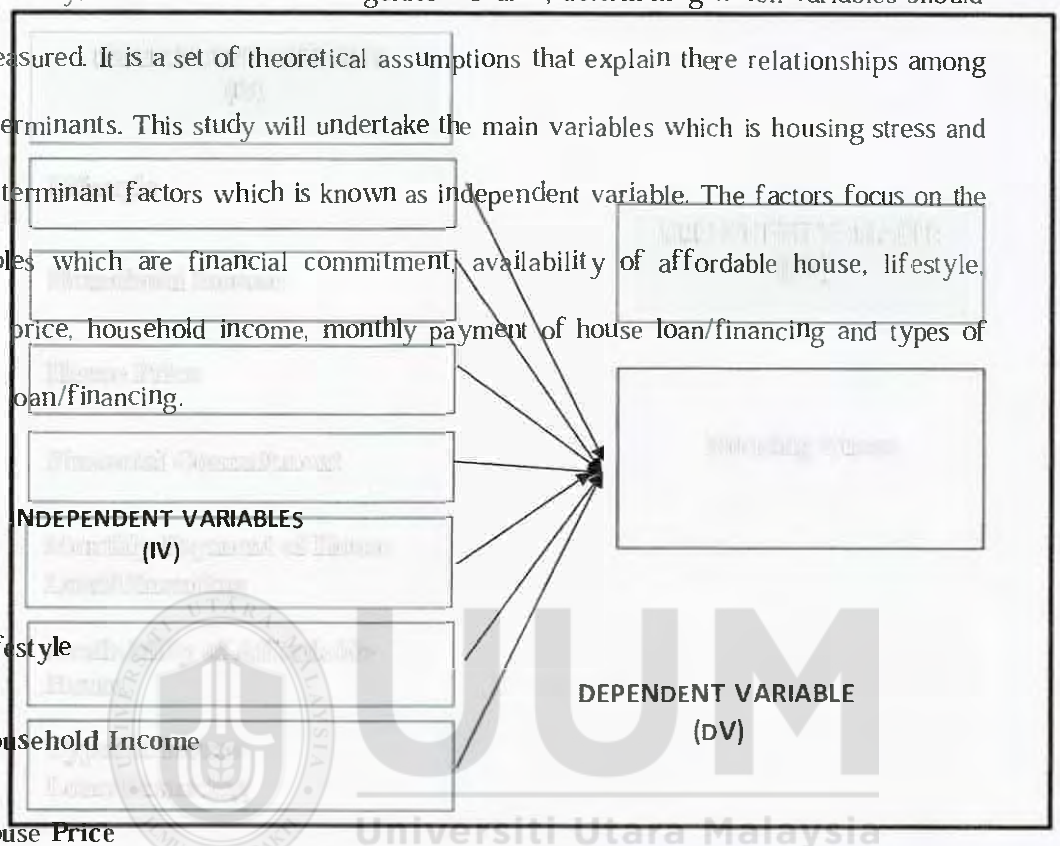

Figure 3.1
Theoretical Framework of Housing Stress

Figure 3.1 display the Independent variable that consist seven of determinants while dependent variable is housing stress.

3.3 Sampling design

3.3.1 Population

In this research, population is defined as the total category of subjects which is the focus of attention on a particular research project. The population in this study is the employees of government servant and private in Kuala Lumpur.

The researcher focus on the government servant and private employees in Kuala Lumpur because most of them are potential buyers with good purchasing power and have a huge potential in housing financing or housing loan. Besides that, the government servant and private employee in Kuala Lumpur are also chosen due to working in Kuala Lumpur, experience and target market for housing ownership and thus able to make decision needed for this study. According to Department of Statistics Malaysia (2018), Kuala Lumpur has about 15.36 million employees. Hence, the samples of the study were selected based on the following criteria to meet the objective of this study:

i) Respondents should be working in Kuala Lumpur

ii) Respondent can be Muslim and non-Muslim

iii) Respondent own a house

3.3.2 Sample Size

The population of this study consists of 15.36 million employees. According to Roscoe (1975) cited in Harun (2014), it is recommended that the sample size is greater than 30 and less than 500 are applicable to most studies. Thus, in this study, 301 completed questionnaires collected is considered acceptable.

3.4 Question Design

In this study, questionnaire was used to gather the data in order to accomplish the objectives of this study. According to Harun, (2014) questionnaire is suggested as most useful data collection method when dealing with large number of respondents. Besides, compared to conducting interviews, engaging with the questionnaire would save more time and would less expensive. It also enables the researcher to collect the entire response from the respective respondents in a short period of time. In addition, the researcher can also explain the clarify in details any questions from respondent that might not understand or have any confusion during the allocation of questionnaire because the researcher distributes the questionnaire with the collaboration with a few government servant and private company.

After the questionnaire has been verified through several processes, the real questionnaire was developing in order to be executed in a real field of study to the real population. The questionnaire contains of front page and its contents divided into two sections. The questionnaires have been developed in dual- language which is English and translated into Malay language. An official cover letter together with questionnaire from the researcher was attached to the respondent.

The questionnaire is split into two sections. The first chapter (Section A) contains the respondent's demographic data (gender, age, marital status, household income, highest level of education, working sector ,monthly personal income ,housing price, monthly payment for housing loan/financing loan, types of house loan/financing and cost of house maintenance). Second section (Section B) consist of 3 section which are (a) lifestyle, (b) availability of affordable house and (c) financial commitment. The construction of this research was measured on a Likert scale of five points, showing the significance of each factor in selection determination. It involves five values that give the answer distinct opinions. The indicators are as follows:

1---------- Strongly Disagree

2---------- Disagree

3---------- Not Sure

4---------- Agree

5---------- Strongly Agree

3.5 Measurement of variable

According to Sekaran (2003), operational definition is used to define something in terms of a process which is done by looking at the behavior dimension, aspect or property signified by the concept.

There are many variables employed in this study for housing stress, lifestyle, availability of affordable house, financial commitment, house price, household income, monthly of payment house loan/financing and types of house loan/financing.

Table 3.5
Measurement of Variable

Variable	Measurement	Expected Science
Housing Stress	Monthly payment of house divided by household income time by 100 percent	Nil
Housing Price	The house price that bought by the respondent	positive
Lifestyle	Current lifestyle by respondent by using Likert scale	Positive
Household Income	Household monthly income by respondent	Negative
Availability of affordable house	Current affordable house provided by government and developer by using Likert scale	Negative
Monthly payment of home loan/financing	Monthly payment of house loan/financing by respondent.	Positive
Types of home loan / financing	Types of loan/financing used by respondent, 0 if conventional, 1 if Islamic	Negative
Financial Commitment	Financial commitment spent by respondent by using Likert scale	Positive

3.6 Questionnaire Design

The detailed of the questionnaire design is attached in Appendix A at the end of this research report. Nominal and interval scale are used as measurement of the questionnaire. According to Sekaran (2003), nominal scale refers to the categorization of individuals into mutual exclusive which can be calculated using percentage or frequencies.

3.7 Pilot study

A pilot study was conducted after the development of questionnaires before a large-scale study is performed. The aim of conducting this pilot survey was to pre-test adequacy and adequacy in order to assess the instrument and whether participants were prepared to comprehend and conceive the answers before the real set of questionnaires was assigned. According to Sekaran (2003), the application of the pilot research is intended to correct and rectify any deficiencies in the tools prior to the collection and identify the wording and translation difficulties in questionnaires as well. Thirty sets of questionnaires were distributed among the employees chosen for the pilot research in Kuala Lumpur.

3.8 Factor analysis

After implementing the pilot study, the data collected from the study was analyzed through developing a factor analysis. This is in order to perform the requirement for the third validity, which is construct validity. Statistical Package for the Social Sciences (SPSS) version 24 is used for the purpose. Basically, to develop questionnaire, researcher often used factor analysis. Therefore, to measure the ability trait, researchers need to make sure that the questions listed are related with the constructs that the researcher intends to measure.

According to Hair, Anderson, Tatham and Black (1998) factor analysis is done through defining the common underlying cut-off point chosen to accommodate a significant factor is 0.30 as purposed. For instance, if the sample size is more than 350 respondents, a factor loading of 0.30 was considered acceptable. Each item was analyzed and those items that

loaded strongly or show a factor loading below 0.30 were removed. Furthermore, as mentioned before, in order to construct the validity researcher need to use factor analysis. In carrying out the factor analysis, two statistical measures, Kaiser-Meyer-Olkin (KMO) and Bartlett's sphericity test, are used to assess the degree of correlation between variables and to examine the existence of correlation between variables (Hair et al. 1998). The KMO or sampling appropriateness measure (MSA) can be interpreted using the following rules proposed by Hair et al. (1998) as MSA value exceeding 0.80 is meritorious; 0.70 above is measureable; 0.60 above is mediocre; 0.50 or above is miserable and below 0.50 cannot be acceptable and should be excluded. Hair et al. (1998) also mention that the test of sphericity should be significant where the value is 0.50.

3.9 Data collection method

In this study, primary data were gathered to tackle the study goals. Primary data is the firs-hand data communication and interaction with the representative population sample, according to Zikmund (2002). The researcher had decided to apply self-administered questionnaire as the main data collection method in this study. Self-administered refers to the situation where participants who are public and private workers in Kuala Lumpur are responsible for reading and responding by themselves to the issues mentioned in the study (Harun, 2014).

In this study, the questionnaires were distributed randomly to respondent from government servant and private company in Kuala Lumpur for 3 weeks duration. The distribution was done according to these following steps in which is firstly, the researcher approached the private company and government servant to ask a permission to conduct

a research in each department and then the researcher will collaborate with the head each department to distribute the questionnaire and ensure all the questionnaires is answered.

3.10 Data analysis

For the raw information collected from the questionnaires, quantitative data analysis was used in this research and analyzed using suitable statistical instruments. The SPSS software version 24 will be used to interpret the outcomes of the analysis. This involves an analysis of the factoring and reliability of the respondent and the distinction between the demographic profiles of the variables. The data later were analyzed and the hypothesis is measured.

3.11 Reliability test

Table 3.11
Results of Reliability Test

Variable	No of Items	Cronbach's Alpha
Lifestyle	301	0.74
Availability of affordable house	301	0.55
Financial commitment	301	0.70

Table 3.11 shows the result of reliability test. The result indicates that Cronbach's alpha for lifestyle, availability of affordable house and financial commitment are 0.74, 0.55, 0.7 respectively, which means that all variables are said to be reliable. Since, the value of

Cronbch's alpha more than 0.5, therefore the strength of association is considered well. As a result, the instrument used in this study is consistent and stable.

3.12 Normality

Normality can be identified through some extent by acquiring the value of skewness and kurtosis. Normal distribution is very important as it show the underlying basis for many interferences researcher that collect data by using sampling. Thus, in this study, normality test is important in order to make sure the normality of the distribution and also to check the outliers that may exist in this study. In addition, Hair et al., (1998) suggested that normality of data is perceived as a fundamental concern. In order to test the normality and to ensure that there is in violation of normality assumption; all the variables were tested by using certain procedure under SPSS.

Besides, by conducting this test the outliers witl be eliminated from the analysis and the outcome obtained after removing outliers can be shown in graphical analysis and statistical test of normality. A straight diagonal line and plotted data values are parallel to the diagonal will be form in normal distribution. As shown in Appendix D, almost all of data distributions were plotted closely with the diagonal in the normal Q-Q plot for all the variables. Therefore, it can be concluded that the data gather in this study did not interrupt the normality assumption for the inferential analysis.

3.13 Correlation

In this study, the correlation coefficient of Pearson will be applied to measure the relationship between the independent and dependent variables and to show the strength of their relationship. According to Ling, Ling, Pey and Hui (2012), therefore, a general rule of thumb is implemented when an investigator assumed that a correlation coefficient is important from the sample. According to Gliner, Morgan and Leech (2009) it is noted that Pearson's correlation can vary from -1.0 (perfect positive correlation). Therefore, this study proposed four hypothesis as follows;

H_{01}: There is no relationship between lifestyle and the level of housing stress.

H_{02}: There is no relationship between availability of affordable house and the level of housing stress.

H_{03}: There is no relationship between financial commitment and the level of housing stress.

H_{04}: There is no relationship between household income and the level of housing stress.

H_{05}: There is no relationship between house price and the level of housing stress.

H_{06}: There is no relationship type of house loan/financing between and the level of housing stress.

H_{07}: There is no relationship between monthly payment of house loan/financing and the level of housing stress.

3.14 Multiple of Regression Analysis

Multiple regressions are normally used to investigate which independent variables that influence the dependent variable the most. This test will help researcher to understand how much of the variance in the dependent variable that are affected by the independent variables. According to Gliner, Morgan and Leech (2009), multiple regressions are commonly used in a data analysis to analyze information containing various independent variables with one dependent variable,. Through multiple regressions test, the value of R-squared is measured where this value of R-squared will show the strength of relationship between independent variables and dependent variable which is tested in this research.

$$y = a + \beta 1x_1 + \beta 2x_2 + \beta 3x_3 + \beta 4x_4 + \beta 5x_5 + \beta 6x_6 + \beta 7x_7$$

Where

a	= intercepts (constant)
Y	= Housing stress
x_1	= Lifestyle
x_2	= Financial commitment
x_3	= Availability of affordable house
x_4	=Type of home loan/financing
x_5	=Housing price
x_6	=Monthly payment of home loan/financing
x_7	=Household income

Figure 3.14
Formula for Multiple Linear Regression

The regression interpretation of regression analysis is based on the unstandardized coefficients (β) and R square (R_2), which provide proof of whether or not to support the above-mentioned hypotheses. The R_2 acquired in the various regressions stated the proportion of variance that can be explained by the independent variables in the dependent variable. The multiple regression analysis helps to understand how much of the variance in the dependent variable, the housing stress level is explained by a set of predictors namely, lifestyle, financial commitment, availability of affordable house, house price, household income, types of home loan/financing and monthly payment of home loan/financing.

Table 3.15
Summary of Data Analysis

Area of Investigation	**Methodology**
To determine the respondent's involvement based on their demographic factor	Descriptive Statistic (Frequencies and percentage)
To examine the level of housing stress	Own calculation Housing stress = (monthly payment of house loan/financing÷ household income x 100%)
To examine the relationship between lifestyle, availability of affordable house, financial commitment, house price, household income, types of house loan/financing and monthly payment of house loan/financing.	Pearson Correlation
To identify the determinants of contributing to housing stress	Multiple linear regression

Table 3.15 above summarized data analysis method that has been used based on the hypotheses or area of investigation in this study.

3.11 Summary

In this chapter, the researcher methodology is vital to address the research problem as well as research questions. Every process starting from collecting data until the tool used to analyze the data were discussed in this chapter. Therefore, in the next chapter the findings of the data analysis would be discussed as extension from this chapter.

CHAPTER FOUR

FINDING

4.0 Introduction

This chapter discusses the findings or the outcomes acquire from the analysis. Through data collected from the respondent, the factor analysis was performed in order to validate the instrument followed by the correlation and regression. All the data analyses that are mentioned in the previous chapter are comprehensively discussed in this chapter.

4.1 Responds rate

A total number of 400 sets of questionnaire were distributed and 301 were returned back to the researcher. The total returned a representing a response rate of 75%, which is deemed acceptable. Furthermore, all the questionnaires returned are useable. The response rate was considered adequate involving respondent that have experience in purchasing a house.

4.2 Demographic profile of the respondents

Using descriptive statistical analysis, participants were examined. Descriptive statistics are performed to examine the information and describe the findings or an overview of the collected sample information. As shown in Table 4.2, the profile of the respondents covers aspects of gender, age, race, marital status,personal income per month, total household income, highest education level, working sector ,housing price, monthly payment for housing loan , type of house .cost maintenance and current type of housing loan.

Table 4.2
Results of Demographic Profile

Demographic profile	Categories	Frequency	Percentage
Gender	Male	115	38.2
	Female	186	61.8
Race	Malay	268	89.0
	Non-Muslim	33	11.00
Age	Below 30 years	52	17.3
	31-40 years	167	55.5
	41-50 years	61	20.3
	51 years above	21	6.9
Marital status	Single	65	21.6
	Married	236	78.4
Highest educational level	Professional certificate	6	2.0
	SPM/Diploma	98	32.6
	Degree	163	54.2
	Master/PHD	34	11.2
Workingsector	Public sector	135	40.9
	Private sector	166	55.1
	Self employed	12	4.00
Type of house	Apartment	156	51.9
	Semi Detached	28	9.3
	Terrace	97	32.2
	Others	20	6.6
Type of house loan/financing	Islamic	229	76.1
	conventional	72	23.9

Table 4.2 shows the result of demographic profile. Among 301 respondents, 38.2 % are males, while majority of the respondents are female which is 61.8 %. As for the race, the result shows respondent's higher are among Malay 89% followed by non- Muslim is 11%. As for the age, the result shows the highest's respondents is age between 31-40 years old, 55% that own a house while the lowest is age 51 years old and above is 6.9% and followed by age 30 years old and below is 17.3% and age between 41-50 years old is 20.3%. For the marital status, the result shows majority of employees among in Kuala Lumpur are married which is 78.4%.

In terms of highest educational level among workers, 163 out of 301 workers are degree level, which indicated the highest percentage of 54.2% rather than SPM/Diploma and Master/PhD, which both consist 32.6% and 11.2%. Meanwhile, working sector shows that the higher percentage is private sector 55.1% followed by public sector is 40.9% and self-employed is 4.0% only. Furthermore, majority of the respondents own apartment as 51.9% followed by terrace 32.2%, semi Detached is 9.3% and others 6.6%. In term of type of housing loan, 229 out of 301 respondents are using Islamic financing rather than conventional loan 23.1% only.

4.3 Descriptive of Statistics

Descriptive statistic include the minimum and maximum value, means, standard deviation for the interval scaled variables. This analysis has been used to analyze housing stress lifestyle, availability of affordable house, financial commitment, house price, household income and monthly payment of house loan/financing. The measure on a five-Likert scale acquired the mean values of the factors, which implies the higher the amount of the five-

point scale, the higher the variable's goodness. Values close to five are regarded better, whereas values close to zero are regarded as poor. A mean value equal to or less than two was deemed low and a mean value of three was deemed to be moderate agreement. A descriptive analysis of all the six variables is illustrated in Table 4.3.

Table 4.3
Descriptive of Statistic of Variable

Variables	Minimum	Maximum	Mean	Std. Deviation
Lifestyle	1.00	5.00	2.8352	.63263
Availability of affordable house	1.00	5.00	3.2372	.44983
Financial commitment	1.00	5.00	3.2292	.66787
Household income	1200	30000	7635.4817	4460.77429
House of price	11000	776666.67	103522.0244	74192.09622
Monthly of Payment house loan/financing	124	8000	1478.5354	894.44103

Table 4.3 illustrates the minimum, maximum, mean and standard deviation of the model variables. The mean values of the availability of affordable house is 3.23. It shows the respondents felt that there are quite many of availability of affordable house provided by developers and government in Kuala Lumpur. Apart of that, financial commitment value is 3.22. It is presented the respondents are more prudent in planning financial needs, free from excessive debt and can adequately prepare for the emergency. Meanwhile the component of lifestyle has mean a value of 2.8. It shows the lifestyle is not a need for respondents in Kuala Lumpur. Respondents are more concerned with living conditions

than lifestyles. This shows respondents take precedence over what is more important than lifestyle. As a result, all the values considered moderate.

4.4 Level of Housing stress

The result of level of housing stress is presented in Table 4.4. According to (Nepal, Tanton, Harding, & McNamara, 2008), housing stress is described as a situation where household spends more than 30 per cent of its income on housing costs. Based on this definition, researcher made a calculation using monthly of payment of house loan/financing divided by household income and times by 100% to get percentage of housing stress.

Table 4.4
Result of Level of Housing Stress

Level of Housing Stress	**N=301**	**Percentage (%)**
Stress	63	20.9
Non Stress	238	79.1

Based on Table 4.4, it was found that 20.9% respondents are facing the housing stress. This resulted by the lower and insufficient income by some of respondents to meet the needs in Kuala Lumpur, and having a high spending claim. So, might have difficulties in managing their financial properly causes respondents not being able to pay monthly payment of house loan/financing. Surprisingly, majority of respondents are non-stress as much as 79.1%. This result may reflect that there are a lot of sources of job in Kuala Lumpur, they may have the possibility to have side income to help them in their income management.

4.5 The Relationship between the Determinants with the Level of Housing Stress

Analysis of Pearson's correlation shows the power and importance of the bivariate connection between variables on the particular manner interval scale. For this study, a prefect correlation between two factors could lead, which is shown by+ 10, or there is also a ideal adverse correlation, shown by -10Therefore, while the level of correlation would be between -1.0 and+ 1.0, we need to understand if there is a significant correlation between the two factors.

To determine the correlation, the meaning level $p<0.05$ and $p<0.01$ are used. This indication indicates that 95 or 99 times out of 100% of the connection between variables can be characterized as real or significantly correlated and Only 5 percent or percent of the chances are there is no relationship. The importance of the relationship intensity (r) between variables also plays a major part in determining the relationship levels between variables. However, before proceeding with correlation analysis, there are four assumptions which have been evaluated. The assumptions underlying correlation analysis are related pair, scale of measurement, normality, linearity and homoscedasticity. Clearly, first and second assumptions are a matter of research design and not statistical. Nevertheless, normality of data was analyzed before and it indicated that all variables are relatively normally distributed, all of the scatter plot indicated that the assumptions of linearity and homoscedasticity have not been violated. Hence, the correlation analysis could be continued because there is no violation of all assumptions.

Thus, this study applied Pearson Correlation to achieve the second objective the relationship between lifestyle, availability of affordable house and financial commitment,

house price, household income, monthly payment of house loan/financing and types of house loan/financing with the level of housing stress. The Pearson correlation coefficients were measured in order to obtain a knowledge of the connection between all the variables in this research. The computation of the Pearson correlation coefficients was performed to obtain the understanding of the relationship between all the variables in this study. The values of the coefficient (r) given in the Table 4.5 the correlation of the variables used in the study.

	0.292**	0....					

Table 4.5

The results of Pearson correlation Analysis among variables

Variables	Lifestyle	Financial Commitment	Monthly payment of house loan	House price	Availability of Affordable House	Type of House loan	Household income
Lifestyle	*1.00*						
Financial commitment	*0.384**						
Monthly payment	*0.181**	*0045*					
House price	*0.185**	*0.063*	*0.761**				
Availability		*157**	*-0.07*	*-0.128**			
Type of loan	*0.028*	*-0.018*	*-0.042*	*0.001*	*0.024*		
Household income	*0.307**	*0.268**	*0.548**	*0.423**	*-0.013*	*-0.018*	
Housing stress	*-0.030*	*-0.115**	*0.396**	*0.307**	*-0.050*	*0.058*	*-0.203**

*Note: Correlation is significant at: **p<0.01*

*** Correlation is significant at: p<0.01 level(2-tailed)*

The results in Table 4.5 indicates that the relationship between all variable. Relationship between lifestyle and availability of affordable house are insignificant and negatively correlated with housing stress while financial commitment and household income are significant and negatively correlated with housing stress. Moreover, relationship between variable of monthly payment of house loan/financing and house of price are significant and positively correlated with housing stress. Apart of that, variable of types of payment house loan/financing is insignificant and positively correlated with housing stress.

4.6 Factors Contributing to the Level of Housing stress.

Table 4.6 present the results of multiple regression analysis used to evaluate the strength of the proposed relationship.

Table 4.6
The result of Multiple Regression Analysis

Determinant	Unstandardized Coefficient		Standardized Coefficient	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.353	.119		11.409	.000***
Lifestyle	.015	.032	.024	.467	.641
Financial commitment	.006	.029	.010	.199	.842
Av affordable house	-.009	.026	-.017	-.345	.730
Types of house loan/financing	-.068	.040	-.077	-1.712	.088***
House price	5.5E-8	.000	.011	.153	.879
Monthly payment of house loan/financin	.000	.000	.720		
Household income	5.3E-5	.000	-.611	-10.788	.000***

Dependent Variable = Housing Stress
*F-value= 29.777, R^2 = 0.416, ***: Sig at 0.00, *: Sig at 0.10*

The R-squared value is the statistic that provides some information about the goodness of the model. The value of R-square (R^2) is 0.416. This indicates that 41.6% of the variation in level of the housing stress among employees in Kuala Lumpur are explained by the seven independent variables.

The result of the multiple linear regression indicate that availability of affordable house also has no significant contributing to the level of housing stress. Interestingly, the result

indicate that type of house loan/financing is a significant influencing to the level of stress (B=-.068, sig=.088). It shows that types of loan/financing is one of the important factor in contributing of housing stress. It shows that having Islamic product as a home financing does not help to reduce of housing stress due to the high cost of financing.

Moreover, the result monthly payment of home loan is positively significant in contributing of the level of stress (B=.000, sig=.000). It shows that the monthly payment of loan/housing contributing to the housing of stress due to insufficient income. This is expected since price cost of repaying the loan/financing is very high due to high interest rate or hidden charges.

Lastly, household income also proved to be a significant predictor of contribute of level of stress (B=-5.290E-5,sig =.000). It shows that household income is negatively influence housing stress. This imply that the higher household income, the lower the housing of stress. This imply that people need to increase their income to reduce their housing stress.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter discusses further on the output of this study to answer the research questions. It begins with the discussion of the findings. Then, several limitation and recommendation for future research have also been suggested.

5.2 Discussion of the Findings

In this study, 20.9% of employees in Kuala Lumpur are facing housing stress. The increasing in the cost of living in the big city is not in line with the slower increase in income. As the cost of living goes up, this will put pressure on the people, especially for those with low incomes. Given that daily necessities in Kuala Lumpur are higher than in rurat areas, employees in Kuala Lumpur cannot avoid having a high spending claim. Hence, in getting the cost of living increases, employees in Kuala Lumpur may need to do more than one job to accommodate the household expenses. Moreover, workloads cause them to eat more outdoors that are more costly than cooking at home that many people do in rural areas. For working couples also, employees need to send their children to a cost-effective nursery while in the famity support village is still strong in assisting childcare issues.

Meanwhite, 79.1% of employees did not facing of housing stress in Kuala Lumpur. It means that employees have sufficient and adequate income to spend on housing. Its shows

that most of the society in Kuala Lumpur are good in managing their financial and prioritize their spending on the needs that are more important. Extraordinary spending appetite must be resisted to practice prudent care by managing prudent and thoughtful spending. Moreover, money should be well managed by reducing unnecessary expenses and preferring to convert money to a stronger currency or a stronger asset. In addition, changing lifestyles requires self-discipline to adjust spending rates to suit your ability and lifestyle. This reflect that employees in Kuala Lumpur are able to manage on their financial properly. Financial management is crucial in optimizing the use of individual income. Hence, a monthly income of individual or families, if financially well managed, it sufficient to meet the individual needs of the city, Kuala Lumpur.

Apart of that, this research identify three significant determinants of housing stress. Firstly, the determinant of monthly payment of house loan/financing that contribute of housing stress. It shows the employees are facing of housing stress to make installment of house loan/financing. The high cost of housing makes it possible for developers to put up high-end homes and may be too expensive for low-income individuals. These high prices make it difficult for low-income people to own a home for them because they fear that their expenses exceed the proper budget. Hence, the higher price of house, the higher the monthly payment of house loan/financing.

Secondly, the types of house loan/financing also one of the determinant that influencing of housing stress. Housing loan or financing no have differences in made house monthly installment because of house financing have modified on conventional loan system. Surprisingly, Islamic banking does not operate fully in line with Islamic principles. Besides, the high cost of financing of Islamic products causes employees experiencing to

housing stress and their similarity with debt instruments. The products of Islamic do not really assist the Umah. Thus, the difficulties experienced by Islamic banking have to function under economic infrastructure, which is distinct from its norms and values, discussed the need for gradual changes in the Islamic banking system. Furthermore, it will require much more effort to solve or enhance the operation of Islamic banking within this dual structure and to guarantee compliance with Shariah. Islamic Banks just use Arabic names for similar riba-based products. The banking systems have different approaches in terms of contract use since conventional banks use debt contracts whilst Islamic banks use Muamalat contracts without interest, but that there are still similarities between the two in terms of calculation of financing because both use the method of compounding. Shariah governance frameworks and the regulatory environment is insufficient in ensuring that Islamic banking products are practiced. Islam has its own way of doing things and there is a culture and custom of doing thing in Islam, which is different from others. Islamic banking should not be subjected to the dictates of conventional banks. Hence, Islamic banks should be firm and optimistic about the implementation of the real Islamic banking without mix-up or colouring conventional banks as Islamic banks globally and Shariah Governance need to adjust and remove any un-Islamic practices from contemporary Islamic banking may to reduce the housing stress.

Thirdly, household income also influencing in contributing to the housing stress. Lower household income and uncertain economic growth are the main reasons people are unable to afford their own homes. Increasing in household income that does not match the rise in house prices. Analysis from Treasury Research Institute (2016), the house prices are 4.4 limes higher than the average annual of salary of Malaysians. Hence, low household

income causes difficult to repay loan/financing. This may reflect to employees who live in Kuala Lumpur to pay high debt burden and find some initiatives by doing side job to cover household expenses.

5.3 Recommendation

Based on the discussion above, some of recommendation can be obtain ed. Ministry of Financial need to do more financial literacy workshop or campaign on financial management to increase awareness and knowledge on the importance of financial education among Malaysians. Besides, Bank Negara Malaysia (BNM) should revised the terms and conditions in housing loans and financing contracts are disproportionately skewed in favour of banking institutions, to the detriment of consumers and Bank Negara Malaysia give banking institutions to revise unfair terms and conditions, and improve clarity by using plain language for both new and existing housing loan and financing contracts. Hence, will help Malaysians free from housing stress.

5.4 Limitations

Notwithstanding this study provides significant contributions to the literature, it has also two main limitations. Firstly, the sample in this study involved specific respondent and area, which is the employees from private or government and in Kuala Lumpur only. Consequently, future studies is suggested to do comparison between private and government servant's employees from different state in Malaysia. Secondly, do some others determinants would be more interesting to stud y as others determinants of housing stress. Hence, for future study to cover these determinants in order to have more journal research on housing stress.

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APPENDIX A

(QUESTIONNNAIRE)

Pusat Pengajian Perniagaan Islam
ISLAMIC BUSINESS SCHOOL
كلية إدارة الأعمال الاسلامية
Universiti Utara Malaysia

DETERMINANTS OF HOUSING STRESS: A STUDY IN KUALA LUMPUR

Dear Sir/Madam,

TO WHOM IT MAY BE CONCERN

I am a postgraduate student on University Utara Malaysia, and currently conducting a survey on Determinants of Housing Stress among employees in Kuala Lumpur. The questionnaire is divided into two sections and you are kindly requested to answer the question in all of the sections. Kindly, help by completing this questionnaire as accurately as possible. Please note that your responses will be treated with utmost confidentiality and would be used purely for academic purposes.

We highly appreciate your co-operations. Thank you in participation of your response.

Yours sincerely,

Nabilah Binti Haji Abdul Rahman
Master Islamic Finance and Banking
Islamic Business School
Universiti Utara Malaysia
06010 sintok,Kedah.

SECTION A: RESPONDENT'S BACKGROUND
BAHAGIAN A:LATAR BELAKANG RESPONDEN

Please tick(/) your answer /Sila tandakan (/) jawapan anda.

1. **Gender/** *Jantina*

Male/*Lelaki* ☐ Female/*Perempuan* ☐

2. ***Race/****Bangsa*

Malay ☐ *Others/Lain-Lain* ☐

3. **Age/** ***Umur*** : (please state/*nyatakan*)

4. **Marital Status/***Status Perkahwinan*

Single/*Bujang* ☐ Married/*Berkahwi* ☐

5. **Highest Educational Level/***Tahap Pendidikan Tertinggi*:

☐ STPM/Diploma ☐ Master/*PHD*

☐ Bachelor's Degree/*Ijazah* ☐ Personal Certification

6. **Working sector/**Sekor pekerjaan

Public sector ☐ Private Sector ☐

Self-employed/ Bekerja Sendiri ☐

7. **Monthly Income/** ***Pendapatan Bulanan:*** ***(please state/ntayakan)***

8. **Total household income (if married)** ***:*** ***(please state/ntayakan)***

Jumlah pendapatan isi rumah (jika berkahwin) :

9. **House pricing** /Harga Rumah:

a) First house/rumah pertama: :

b) Second house (if any)/rumah kedua (jika ada) :

© Third house (if any)/runah ketiga (jika ada) :

10. **Monthly payment for house financing/ loan**
(please state/nyatakan)
Bayaran bulanan pembiayaan/pinjaman rumah

11. **Type of house**/Jenis Rumah

☐ Apartment

☐ Semi detached

☐ Terrace

☐ Others (please state/nyatakan)

12. **Your Current type of housing loan**
Jenis pembiayaan rumah

Conventional ☐

Islamic ☐

SECTION B :INFORMATION TOWARDS HOUSING STRESS
MAKLUMATTERHADAPTEKANANPERUMAHAN

please tick (/) the appropriate answer.

Strongly disagree	Disagree	Not sure	Agree	Strongly agree
Sangat tidak setuju	*tidak setuju*	*Tidak pasti*	*setuju*	*Sangat setuju*
1	2	3	4	5

No.	Statement/*Kenyataan*	1	2	3	4	5
	LIFESTYLE					
13.	I spend heavily on foods **Saya memperuntukkan perbelanjaan yang lebih untuk makanan**		2	3	4	5
14.	I spend heavily on leisure **Saya memperuntukkan perbelanjaan yang tinggi untuk melancong dan aktiviti mengisi masa lapang**	1	2	3	4	5
15.	I spend heavily on vehicle's maintenance/accessories **Saya memperuntukkan perbelanjaan yang tinggi untuk mencantikkan kenderaan saya**	1	2	3	4	5
16.	. I spend heavily on branded clothing/luxury item **Saya memperuntukkan perbelanjaan** yang tinggi pada pakaian yang ber jenama/mewah	1	2	3	4	5
17.	I spend heavily on donation and charity **Saya memperuntukkan perbelanjaan yang tinggi untuk bersedekah dan kebajikan**	1	2	3	4	5
	AVAILABILITY OF AFFORDABLE HOUSE					
18.	Currently ,a lot of affordable house is provided **Banyak rumah yang tersedia ada sekarang**	1	2	3	4	5
19.	Currently ,the price for availability of housing is too high **Harga rumah yang tersedia ada sekarang terlampau tinggi**	1	2	3	4	5
20.	Currently, affordable house is poorly provided **Rumah mampu milik sekarang kurang disediakan**	1	2	3	4	5

21.	The government provides a lot of affordable house **Kerajaan menyediakan banyak rumah mampu milik**	1	2	3	4	5		
22.	Developer provides a lot of affordable house rather than higher cost **Pemaju menyediakan banyak rumah mampu milik berbanding kos yang lebih tinggi**	1	2	3	4	5		
23.	*FINANCIAL COMMITMENT*							
24.	*I have a relatively high debt* *Saya berhadapan dengan jumlah hutang yang agak tinggi*	1	2	3	4	5		
25.	*I spend heavily on my children's education* *Saya memperuntukkan perbelanjaan yang tinggi untuk pendidikan anak*	1	2	3	4	5		
26.	*I spend heavily on household expenses* *Saya memperuntukkan perbelanjaan yang tinggi untuk isi rumah*	1	2	3	4	5		
27.	*I spend heavily on transportation cost* *Saya memperuntukkan perbelanjaan yang tinggi untuk kos pengangkulan*	1	2	3	4	5		
28.	*I spend heavily on takaful / insurance* *Saya memperuntukkan perbelanjaan yang tinggi untuk perlindungan takaful/insuran*	1	2	3	4	5		

THANK YOU

APPENDIXB

(FACTOR ANALYSIS)

(A) Factor Analysis for Availability of Affordable House

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.478
Bartlett's Test of Sphericity	Approx. Chi-Square	254.952
	Df	120
	Sig.	.000

Table 3.4 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.019	25.121	25.121	4.019	25.121	25.121	3.234
2	3.050	19.063	44.184	3.050	19.063	44.184	2.618
3	2.100	13.126	57.309	2.100	13.126	57.309	2.071
4	1.564	9.776	67.086	1.564	9.776	67.086	3.094
5	1.109	6.933	74.019	1.109	6.933	74.019	2.076
6	.891	5.568	79.587				
7	.875	5.467	85.054				
8	.586	3.663	88.717				
9	.498	3.115	91.832				
10	.398	2.488	94.320				
11	.281	1.755	96.075				
12	.235	1.470	97.545				
13	.184	1.150	98.695				
14	.099	.621	99.316				
15	.065	.405	99.721				
16	.045	.279	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 3.5 Component Matrix[a]

	Component				
	1	2	3	4	5
FC4	.780	.303			
L3	.777	-.366			
L4	.769			-.304	
FC6	.691			.428	
L5	.668				
L2	.594		.434	-.484	
FC5	.520	.427		.408	
FC3	.315	.816			
AOAH3		.650		-.372	.363
FC1		.635			.344
FC2	.371	.617			.312
AOAH2		.611			
AOAH4			.814	.385	
AOAH5			.725	.510	
AOAH1	.484	-.381	.502		.466
L1		.383	.460	-.351	-.486

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

Table 3.6 Pattern Matrix[a]

	Component				
	1	2	3	4	5
AOAH1	.909		.348		
L3	.829				
L4	.682				
L5	.561			.370	
AOAH3		.829			
FC1		.698			
AOAH2		.673			
FC2		.606		.464	
AOAH4			.907		
AOAH5			.902		
FC5				.865	
FC4				.803	
FC6				.785	
L1					-.843
L2	.532				-.674
FC3		.426		.389	-.611

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 13 iterations.

(B) Factor Analysis for Lifestyle

Table 3.7 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.019	25.121	25.121	4.019	25.121	25.121	4.004
2	3.050	19.063	44.184	3.050	19.063	44.184	3.066
3	2.100	13.126	57.309	2.100	13.126	57.309	2.111
4	1.564	9.776	67.086				
5	1.109	6.933	74.019				
6	.891	5.568	79.587				
7	.875	5.467	85.054				
8	.586	3.663	88.717				
9	.498	3.115	91.832				
10	.398	2.488	94.320				
11	.281	1.755	96.075				
12	.235	1.470	97.545				
13	.184	1.150	98.695				
14	.099	.621	99.316				
15	.065	.405	99.721				
16	.045	.279	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 3.8 Component Matrix[a]

	Component		
	1	2	3
FC4	.780	.303	
L3	.777	-.366	
L4	.769		
FC6	.691		
L5	.668		
L2	.594		.434
FC5	.520	.427	
FC3	.315	.816	
AOAH3		.650	
FC1		.635	
FC2	.371	.617	
AOAH2		.611	
AOAH4			.814
AOAH5			.725
AOAH1	.484	-.381	.502
L1		.383	.460

Extraction Method: Principal Component Analysis.
a. 3 components extracted.

Table 3.9 Pattern Matrix[a]

	Component		
	1	2	3
L3	.824		
L4	.797		
FC4	.721	.385	
L5	.676		
FC6	.664		
L2	.625		.423
AOAH1	.560		.506
FC3		.855	
FC2		.639	-.320
AOAH3		.627	
FC1		.626	
AOAH2		.591	
FC5	.445	.474	
L1		.442	.435
AOAH4			.818
AOAH5			.723

Extraction Method: Principal Component Analysis.
Rotation Mothod: Oblimin with Kaiser Normalization.

(C) Factor Analysis Financial Commitments

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.672
Bartlett's Test of Sphericity	Approx. Chi-Square	66.689
	Df	36
	Sig.	.001

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.647	51.628	51.628	4.647	51.628	51.628	3.642
2	1.331	14.792	66.419	1.331	14.792	66.419	3.182
3	1.097	12.188	78.607	1.097	12.188	78.607	2.513
4	.656	7.294	85.901				
5	.445	4.946	90.847				
6	.368	4.091	94.938				
7	.268	2.981	97.919				
8	.133	1.476	99.395				
9	.054	.605	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

APPENDIXC

(DESCRIPTIVE STATISTIC)

(A) Level of Variable

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LMEAN	301	1.00	5.00	2.8352	.63263	-.501	.140	1.022	.280
FCMEAN	301	1.20	5.00	3.2219	.66787	-.391	.140	.354	.280
AOAHMEAN	301	1.00	4.33	2.4850	.70884	-.043	.140	.030	.280
TOLMEAN	301	1.00	2.00	1.2525	.43517	1.145	.140	-.693	.280
HOPMEAN	301	11000.00	776666.67	103522.0244	74192.09622	3.315	.140	23.467	.280
MPHLMEAN	301	124.00	8000.00	1478.5354	894.44103	2.496	.140	11.997	.280
HIMEAN	301	1200.00	30000.00	7635.4817	4460.77429	1.607	.140	4.454	.280
DVMEAN	301	1.00	2.00	1.3671	.38594	.497	.140	-1.160	.280
Valid N (listwise)	301								

APPENDIXD

(RELIABILITY TEST)

(A) Reliability Test For Lifestyle

Reliability Statistics

Cronbach's Alpha	N of Items
.742	5

Item Statistics

	Mean	Std. Deviation	N
L1	3.6844	.94895	301
L2	2.8073	.89596	301
L3	2.3488	.89139	301
L4	2.3256	.94179	301
L5	3.0100	.82658	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
L1	10.4917	7.344	.344	.758
L2	11.3688	6.480	.597	.662
L3	11.8272	6.750	.531	.687
L4	11.8505	6.234	.613	.654
L5	11.1661	7.272	.460	.713

(B) Reliability Test For Availability of Affordable House

Reliability Statistics

Cronbach's Alpha	N of Items
.551	3

Item Statistics

	Mean	Std. Deviation	N
AOAH1	2.5449	.96029	301
AOAH4	2.8073	.89596	301
AOAH5	2.1030	1.06428	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
AOAH1	4.9103	2.695	.287	.564
AOAH4	4.6478	2.636	.373	.441
AOAH5	5.3522	2.049	.440	.316

(C) Reliability Test For Financial Commitment

Reliability Statistics

Cronbach's Alpha	N of Items
.698	5

Item Statistics

	Mean	Std. Deviation	N
FC1	2.9103	.82982	301
FC2	3.2392	1.29200	301
FC3	3.6645	.94359	301
FC4	3.2060	.92237	301
FC5	3.0897	.90660	301

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
FC1	13.1993	8.807	.336	.693
FC2	12.8704	6.673	.421	.684
FC3	12.4452	7.268	.588	.594
FC4	12.9037	7.681	.512	.627
FC5	13.0199	7.946	.466	.646

APPENDIXE

(NORMALITY TEST)

(A) Normality Test

Descriptives

			Statistic	Std. Error
Lifestyle	Mean		2.8352	.03646
	95% Confidence Interval for Mean	Lower Bound	2.7635	
		Upper Bound	2.9070	
	5% Trimmed Mean		2.8554	
	Median		3.0000	
	Variance		.400	
	Std. Deviation		.63263	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		.80	
	Skewness		-.501	.140
	Kurtosis		1.022	.280
Availability	Mean		3.2372	.02593
	95% Confidence Interval for Mean	Lower Bound	3.1862	
		Upper Bound	3.2882	
	5% Trimmed Mean		3.2376	
	Median		3.2000	
	Variance		.202	
	Std. Deviation		.44983	
	Minimum		1.00	
	Maximum		4.40	
	Range		3.40	

	Interquartile Range		.40	
	Skewness		.480	.140
	Kurtosis		2.763	.280
Financial	Mean		3.2292	.03836
	95% Confidence Interval for Mean	Lower Bound	3.1538	
		Upper Bound	3.3047	
	5% Trimmed Mean		3.2480	
	Median		3.2000	
	Variance		.443	
	Std. Deviation		.66549	
	Minimum		1.20	
	Maximum		5.00	
	Range		3.80	
	Interquartile Range		1.00	
	Skewness		-.420	.140
	Kurtosis		.414	.280

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Lifestyle	.142	301	.000	.962	301	.000
Availability	.123	301	.000	.946	301	.000
Financial	.086	301	.000	.978	301	.000

APPENDIXF

(MULTIPLE REGRESSION)

FACTORS OF CONTRIBUTING TO HOUSING STRESS

Descriptive Statistics

	Mean	Std. Deviation	N
DVMEAN	1.3671	.38594	301
LMEAN	2.8352	.63263	301
FCMEAN	3.2219	.66787	301
MPHLMEAN	1478.5354	894.44103	301
HOPMEAN	103522.0244	74192.09622	301
AOAHMEAN	2.4850	.70884	301
TOLMEAN	.7475	.43517	301
HIMEAN	7635.4817	4460.77429	301

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	HIMEAN, AOAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN[b]		Enter

a. Dependent Variable: DVMEAN

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645[a]	.416	.402	.29852

a. Predictors: (Constant), HIMEAN, AOAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN

b. Dependent Variable: Housing Stress

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.217	.112		10.906	.000	.997	1.437		.022	.021	.733	1.365
	LMEAN	.015	.032	.024	.467	.641	-.048	.077		0.12	.009	.807	1.240
	FCMEAN	.008	.029	0.10	.199	.842	-.051	.062		.487	.427	.351	2.847
	MPHLMEAN	.000	.000	.720	9.551	.000	.000	.000		.009	.007	.409	2.447
	HOPMEAN	5.555E-8	.000	.011	.153	.879	.000	.000		-.020	-.015	.873	1.145
	AOAHMEAN	-.009	.028	-.01	-.345	.730	-.060	.042		1.00	.078	.993	1.007
	TOLMEAN	.068	.040	.07	1.712	.088	-.010	-.148		-.533	-.482	.621	1.810
	HMEAN	-5.290E-5	.000	-.611	10.788	.000	.000	.000					

a. Dependent Variable: DVMEAN

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.574	7	2.653	29.777	.000[b]
	Residual	26.110	293	.089		
	Total	44.684	300			

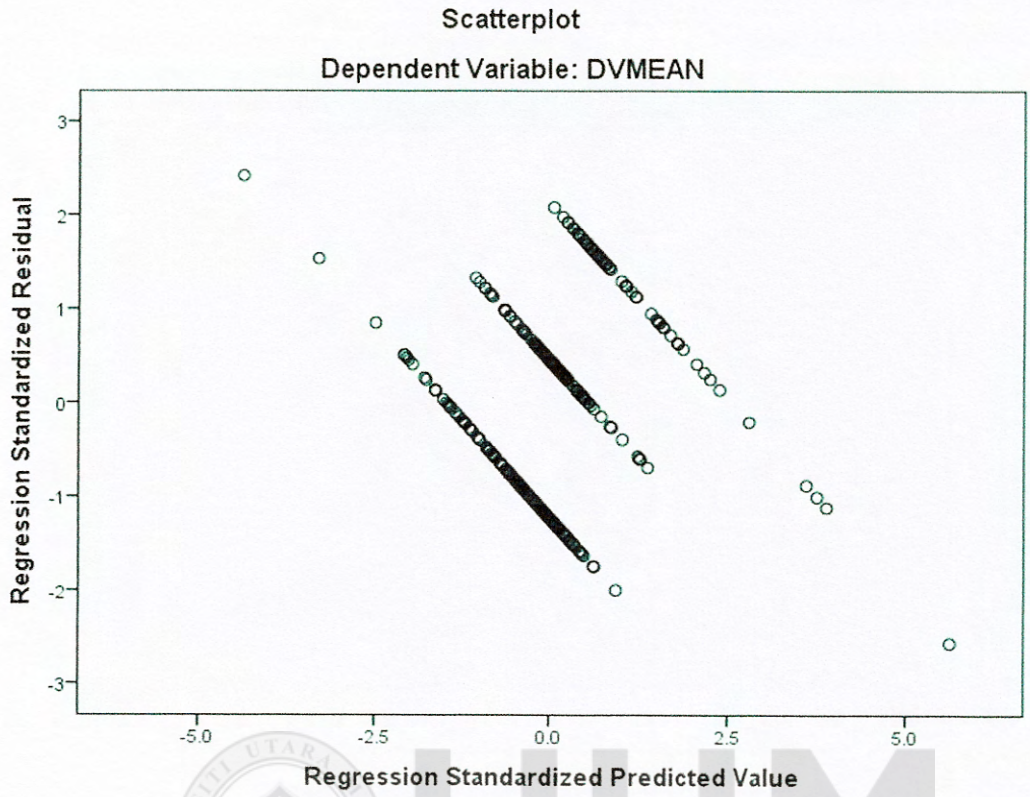
a. Dependent Variable: DVMEAN

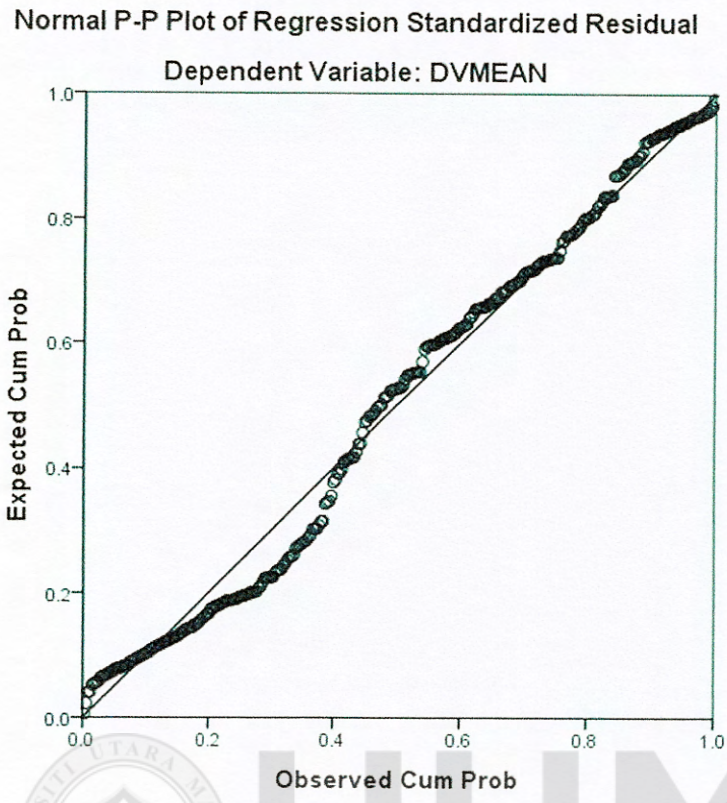
b. Predictors: (Constant), HIMEAN, AQAHMEAN, TOLMEAN, FCMEAN, HOPMEAN, LMEAN, MPHLMEAN

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.2776	2.7667	1.3671	.24883	301
Std. Predicted Value	-4.379	5.625	.000	1.000	301
Standard Error of Predicted Value	.022	.231	.045	.018	301
Adjusted Predicted Value	.1710	2.9935	1.3672	.25568	301
Residual	-.76668	.72241	.00000	.29501	301
Std. Residual	-2.568	2.420	.000	.988	301
Stud. Residual	-2.924	2.592	.000	1.004	301
Deleted Residual	-.99349	.82904	-.00010	.30491	301
Stud. Deleted Residual	-2.962	2.618	.000	1.006	301
Mahal. Distance	.691	178.356	6.977	11.688	301
Cook's Distance	.000	.316	.004	.020	301
Centered Leverage Value	.002	.595	.023	.039	301

a. Dependent Variable: DVMEAN





APPENDIX

G

(CORRELATION)

		DVMEAN	LMEAN	FCMEAN	MPHLMEAN	HOPMEAN	AOAHMEAN	TOLMEAN	HIMEAN
Pearson Correlation	DVMEAN	1.000	-.030	-.115	.396	.307	-.050	.058	-.203
	LMEAN	-.030	1.000	.384	.181	.185	.292	.028	.307
	FCMEAN	-.115	.384	1.000	.045	.063	.157	-.018	.268
	MPHLMEAN	.396	.181	.045	1.000	.761	-.070	-.042	.548
	HOPMEAN	.307	.185	.063	.761	1.000	-.128	-.001	.423
	AOAHMEAN	-.050	.292	.157	-.070	-.128	1.000	.024	-.013
	TOLMEAN	.058	.028	-.018	-.042	-.001	.024	.000	-.018
	HIMEAN	-.203	.307	.268	.548	.423	-.013	-.018	1.000
Sig. (1-tailed)	DVMEAN		.303	.023	.000	.000	.194	.160	.000
	LMEAN	.303		.000	.001	.001	.000	.317	.000
	FCMEAN	.023	.000		.216	.137	.003	.381	.000
	MPHLMEAN	.000	.001	.216		.000	.112	.236	.000
	HOPMEAN	.000	.001	.137	.000		.013	.495	.000
	AOAHMEAN	.194	.000	.003	.112	.013		.341	.409

	TOL MEAN	.160	.317	.381	.236	.495	.341		.381
	HIMEAN	.000	.000	.000	.000	.000	.409	.381	
N	DVMEAN	301	301	301	301	301	301	301	301
	LMEAN	301	301	301	301	301	301	301	301
	FCMEAN	301	301	301	301	301	301	301	301
	MPHLMEAN	301	301	301	301	301	301	301	301
	HOPMEAN	301	301	301	301	301	301	301	301
	AOAHMEAN	301	301	301	301	301	301	301	301
	TOL MEAN	301	301	301	301	301	301	301	301
	HIMEAN	301	301	301	301	301	301	301	301